

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	770	(548/561).CCLS.	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	OFF	2007/07/23 06:56
L2	379	(562/621).CCLS.	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	OFF	2007/07/23 06:57
L3	1500	(514/408).CCLS.	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	OFF	2007/07/23 06:57

## EAST Search History

L4	554	(514/575).CCLS.	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	OFF	2007/07/23 06:57
L5	9	I1 and I2	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	ON	2007/07/23 06:57
L6	44	I3 and I4	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	ON	2007/07/23 06:57

## EAST Search History

L7	5	I5 and I6	US-PGP UB; USPAT; USOCR ; EPO; JPO; DERWE NT; IBM_T DB	OR	ON	2007/07/23 06:57
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07/23/2007

agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* STN Columbus \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* . \* \* \* \*

FILE 'HOME' ENTERED AT 06:52:38 ON 23 JUL 2007

=> file reg  
COST IN U.S. DOLLARS  
  
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
0.21	0.21

FILE 'REGISTRY' ENTERED AT 06:52:46 ON 23 JUL 2007  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 JUL 2007 HIGHEST RN 943125-41-5  
DICTIONARY FILE UPDATES: 22 JUL 2007 HIGHEST RN 943125-41-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

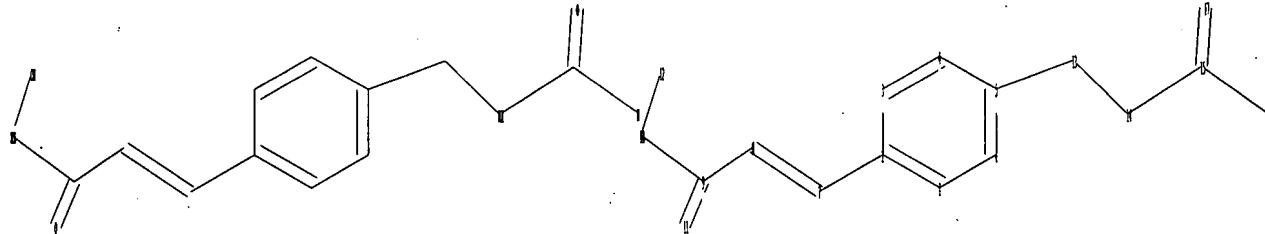
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=> Uploading C:\Program Files\Stnexp\Queries\10510630.str
```



```

chain nodes :
 7 8 9 10 11 12 13
ring nodes :
 1 2 3 4 5 6
chain bonds :
 2-7 5-13 7-8 8-9 9-10
ring bonds :

```

10510630>

07/23/2007

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

9-10 9-11 13-14 14-15 15-16 15-17

exact bonds :

2-7 5-13 7-8 8-9 10-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

Match level :

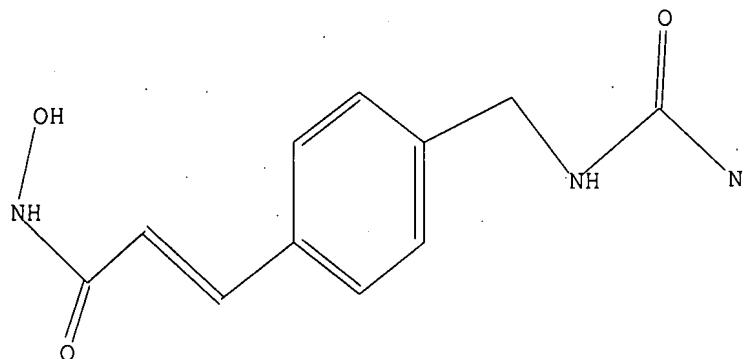
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS  
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 06:53:11 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 3 TO 163  
PROJECTED ANSWERS: 0 TO 0

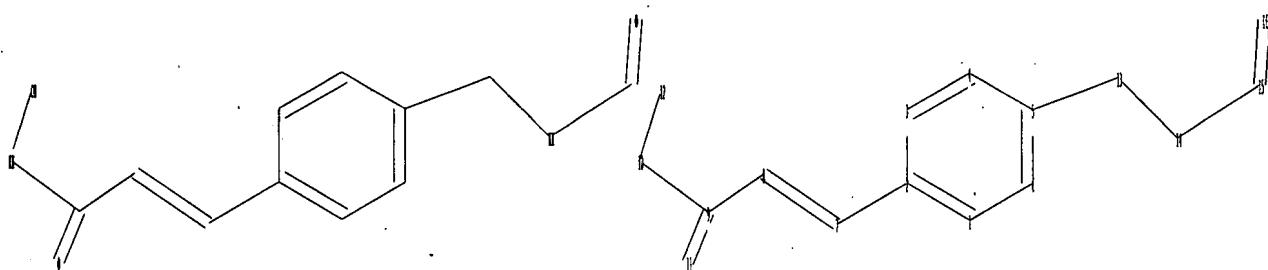
L2 0 SEA SSS SAM L1

=>

Uploading C:\Program Files\Stnexp\Queries\105106301.str

10510630>

07/23/2007



chain nodes :

7 8 9 10 11 12 13 14 15 16

ring nodes :

1 2 3 4 5 6

chain bonds :

2-7 5-13 7-8 8-9 9-10 9-11 10-12 13-14 14-15 15-16

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

9-10 9-11 13-14 14-15 15-16

exact bonds :

2-7 5-13 7-8 8-9 10-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems :

containing 1 :

Match level :

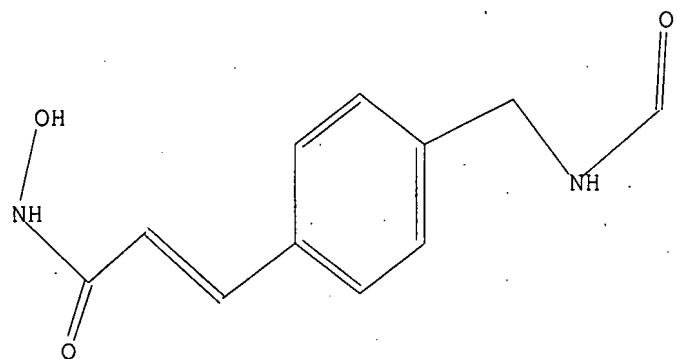
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11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L3 STRUCTURE UPLOADED

=> d

L3 HAS NO ANSWERS

L3 STR



Structure attributes must be viewed using STN Express query preparation.

10510630>

07/23/2007

=> s 13

SAMPLE SEARCH INITIATED 06:54:56 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 22 TO ITERATE

100.0% PROCESSED 22 ITERATIONS  
SEARCH TIME: 00.00.01

3 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 159 TO 721  
PROJECTED ANSWERS: 3 TO 163

L4 3 SEA SSS SAM L3

=> s 13 full  
FULL SEARCH INITIATED 06:55:07 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 328 TO ITERATE

100.0% PROCESSED 328 ITERATIONS  
SEARCH TIME: 00.00.01

L5 19 SEA SSS FUL L3

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
173.45 173.66

FILE 'CAPLUS' ENTERED AT 06:55:12 ON 23 JUL 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 23 Jul 2007 VOL 147 ISS 5  
FILE LAST UPDATED: 22 Jul 2007 (20070722/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 14  
L6 3 L4

=> d ibib abs hitstr tot

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:698117 CAPLUS

DOCUMENT NUMBER: 141:202277

TITLE: Dialkylbenzenes hydroxylamide histone deacetylase

inhibitors for use in therapeutics

INVENTOR(S): Urano, Yasuharu; Hosaka, Mitsuji; Kamijo, Kazunori

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 75 pp.

CODEN: PIKXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004071401	A2	20040826	WO 2004-JP1437	20040210
WO 2004071401	A3	20041014		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, RW: BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: AU 2003-900587 A 20030211

OTHER SOURCE(S): MARPAT 141:202277

AB Compds. R1R2CH-C6H4-L-COR3 (R1 = lower alkyl optionally substituted with one or more suitable substituent(s), aryl optionally substituted with one or more suitable substituent(s), fused ring; R2 = acylamino, optionally protected OH; L = lower alkynylene; R3 = hydroxymino), or salts thereof, are disclosed. The compds. are useful as inhibitors of histone deacetylase and may be used to treat a variety of diseases, e.g., inflammatory disorders, diabetes, cirrhosis, acute promyelocytic

leukemia, protozoal infections, etc. Thus, over 100 compds. were synthesized and 4 were shown to inhibit histone deacetylase and to inhibit T cell growth.

IT 741708-57-6

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (dialkylbenzene hydroxylamide histone deacetylase inhibitors for use in

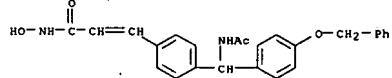
therapeutics)

RN 741708-57-6 CAPLUS

CN 2-Propanamide,

3-[4-[(acetylamino)[4-(phenylmethoxy)phenyl]methyl]phenyl]-N-hydroxy- (9CI) (CA INDEX NAME)

L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:921937 CAPLUS

DOCUMENT NUMBER: 140:111380

TITLE: Synthesis and Biological Evaluation of 3-(4-Substituted-phenyl)-N-hydroxy-2-propenamides, a New Class of Histone Deacetylase Inhibitors

AUTHOR(S): Kim, Dae-Kee; Lee, Ju Young; Kim, Jae-Sun; Ryu, Je-Ho;

CORPORATE SOURCE: Choi, Jin-Young; Lee, Jun Won; Im, Guang-Jin; Kim, Tae-Kon; Seo, Jung Woo; Park, Hyun-Ju; Yoo, Jakyung; Park, Jung-Hyun; Kim, Tae-You; Bang, Yung-Jue

SOURCE: In2Gen Co., Ltd., Seoul, 110-799, S. Korea

Journal of Medicinal Chemistry (2003), 46(26),

5745-5751

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:111380

AB Inhibitors of histone deacetylases (HDACs) have been shown to induce differentiation and/or apoptosis of human tumor cells. Novel 3-(4-substituted-phenyl)-N-hydroxy-2-propenamides have been prepared as a new class of HDAC inhibitors and evaluated for their antiproliferative activity and HDAC inhibitory activity. Incorporation of a 1,4-phenylene carboxamide linker and a 4-(dimethylamino)phenyl or 4-(1-pyrrolidinyl)phenyl group as a cap substructure generated highly potent hydroxamic acid-based HDAC inhibitors. Compds. thus prepared included

3-[(4-(dimethylamino)phenyl)carbonyl]amino)methyl]phenyl]-N-hydroxy-2-propenamide, N-hydroxy-3-[4-[(1-pyrrolidinyl)phenyl]carbonyl]amino]methyl]phenyl]-2-propenamide, N-hydroxy-3-[4-[(1-pyrrolidinyl)phenyl]carbonyl]amino]methyl]phenyl]-2-propenamide.

IT 617690-93-4 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation, biol. evaluation of (phenyl)-N-hydroxypropenamides as histone deacetylase inhibitors)

RN 617690-93-4 CAPLUS

CN Benzamide,

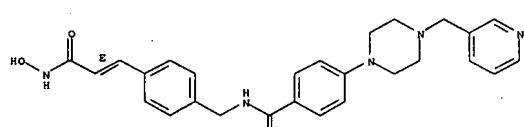
N-[(4-((1E)-3-(hydroxymino)-3-oxo-1-propenyl)phenyl)methyl]-4-(4-(3-pyridinylmethyl)-1-piperazinyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS FORMAT

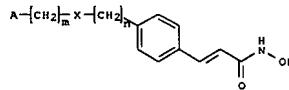
RECORD. ALL CITATIONS AVAILABLE IN THE RE



L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:837054 CAPLUS  
 DOCUMENT NUMBER: 139:337992  
 TITLE: Preparation of  $\alpha,\beta$ -unsaturated hydroxamic acid derivatives as histone deacetylase inhibitors  
 INVENTOR(S): Kim, Dae-Kee; Lee, Ju Young; Lee, Nam Kyu; Kim, Jee-Sun; Lee, Junwon; Lee, Suk Ho; Choi, Jin Young; Ryu, Ju Ho; Kim, Nam Ho; Im, Guang-Jin; Kim, Tae Kon; Seo, Jung-Woo; Bang, Young-Jue  
 PATENT ASSIGNEE(S): SK Chemicals, Co. Ltd., S. Korea; In2Gen Co., Ltd.  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087066	A1	20031023	WO 2003-KR721	20030410
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LV, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
AU 2003219595	A1	20031027	AU 2003-219595	20030410
US 2005124679	A1	20050609	US 2003-510630	20030410
KR 2003081173	A	20031017	KR 2003-22994	20030411
PRIORITY APPN. INFO.:			KR 2002-19712	A 20020411
		WO 2003-KR721	W 20030410	

OTHER SOURCE(S): MARPAT 139:337992  
 GI



AB The title compds. (I; A = (un)substituted Ph, heterocycll; m = 0-4; n = 1-4; X = CONR<sub>1</sub>, OCONR<sub>1</sub>, SO<sub>2</sub>, NR<sub>2</sub>SO<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub> = H, alkyl) that inhibit histone deacetylase, were prepared. More specifically, the present invention

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)  
 relates to novel hydroxamic acid derivs. I or pharmaceutically acceptable salts thereof for anticancer agents or other therapeutic agents based on their histone deacetylase inhibitory activity. E.g., a 3-step synthesis of N-[4-(2-hydroxy carbamoylvinyl)benzyl]-4-[4-(pyridin-3-ylmethyl)piperazine and 4-fluorobenzonitrile which showed IC<sub>50</sub> of 11.98  $\mu\text{M}$ , 3.19  $\mu\text{M}$  and 38.59  $\mu\text{M}$  in human cancer cell lines such as A-549, SK-BR-3 and MKN-45 (resp.), was given. Pharmaceutical compn. comprising the compnd. I is claimed.

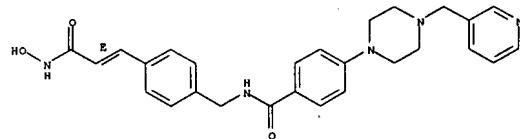
IT 617690-93-4P 617691-00-6P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of  $\alpha,\beta$ -unsatd. hydroxamic acid derivs. as histone deacetylase inhibitors)

RN 617690-93-4 CAPLUS

CN Benzamide,  
 N-[4-[(1E)-3-(hydroxyamino)-3-oxo-1-propenyl]phenyl]methyl]-4-[4-(3-pyridinylmethyl)-1-piperazinyl] (9CI) (CA INDEX NAME)

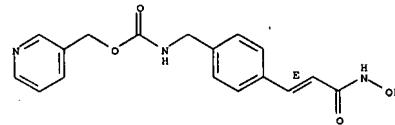
Double bond geometry as shown.



RN 617691-00-6 CAPLUS

CN Carbamic acid,  
 (([4-[(1E)-3-(hydroxyamino)-3-oxo-1-propenyl]phenyl)methyl]-3-pyridinylmethyl ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

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.07/23/2007

=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
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FULL ESTIMATED COST

16.28	189.94
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

	SINCE FILE ENTRY	TOTAL SESSION
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CA SUBSCRIBER PRICE

-2.34	-2.34
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STN INTERNATIONAL LOGOFF AT 06:55:37 ON 23 JUL 2007